BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvement to Roads and Drains of Kashinagara Main Road (BalanceWork) in Ward No. 07,Byatarayanapura.

Estimated Cost : Rs. 40.00 Lakhs

Head of Account : P-

Job Number 007-18-000039

Name of Agency: Executive Engineer, KRIDL

Work order No: BBMP/EE/BTP/101/2017-18 Dated: 02.03.2018

Measurements Recarded on : Measurement Recorded MB 4298/17

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
1	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.								Cum	
	Kashinagara Main Road 1st Cross L/S to Burial Ground									
	Ch: 0.00 to 37.00 M	1	37.00			1.00	1.00	37.00		
	Ch: 43.00 to 68.00 M	1	25.00			1.00	1.00	25.00		
	Ch: 73.00 to 111.00 M	1	38.00			1.00	1.00	38.00		
	Ch: 116.00 to 142.00 M	1	26.00			1.00	1.00	26.00		
	Ch: 148.00 to 169.00 M	1	21.00			1.00	1.00	21.00		
	Ch: 175.00 to 205.00 M	1	30.00			1.00	1.00	30.00		
	Ch: 205.00 to 233.00 M	1	28.00			1.00	1.00	28.00		
	Desilting of Drains Existing Drain R/S									
	Ch: 0.00 to 24.00 M	1	24.00			0.60	0.75	10.80		
	Ch: 30.00 to 61.00 M	1	31.00			0.60	0.75	13.95		
	Ch: 66.00 to 96.00 M	1	30.00			0.60	0.75	13.50		
	Ch: 96.00 to 126.00 M	1	30.00			0.60	0.75	13.50		
	Ch: 126.00 to 156.00 M	1	30.00			0.60	0.75	13.50		
	Ch: 156.00 to 184.00 M	1	28.00			0.60	0.75	12.60		
	Ch: 205.00 to 219.00 M	1	14.00			0.60	0.75	6.30		
	Kashinagara Main Road (Burial Ground to Pvt Property									
	Ch: 0.00 to 30.00 M	2	30.00			0.60	0.75	27.00		
	Ch: 30.00 to 60.00 M	2	30.00			0.60	0.75	27.00		
	Ch: 60.00 to 90.00 M	2	30.00			0.60	0.75	27.00		
	Ch: 90.00 to 120.00 M	2	30.00			0.60	0.75	27.00		
	Ch: 0.00 to 30.00 M	2	30.00			0.60	0.75	27.00		
	Ch: 30.00 to 60.00 M	2	30.00			0.60	0.75	27.00		
	Ch: 60.00 to 90.00 M	2	30.00			0.60	0.75	27.00		
	Ch: 90.00 to 103.00 M	2	13.00			0.60	0.75	11.70		
	Culverts									
		1	6.00			1.80	1.00	10.80		
		1	6.00			1.80	1.00	10.80		
		1	6.00			1.80	1.00	10.80		
	Over Burden Earth near Burial Ground									
		1	15.00			2.00	0.90	27.00		
		1	25.00			2.00	1.20	60.00		
		1	20.00			2.50	1.20	60.00		
		1	25.00			2.95	1.50	110.63		
		1	33.00			1.50	2.00	99.00		
							Total Qty =	878.88		
							Qty Limited to =	878.88	86.92	76392.00

Checked 6/8/18

Assistant Executive Engr
Kodigehalli Sub Divisio
Yelahanka Z[illegible] B.B.M
Ba[illegible]

Assistant Engineer

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
2	Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum	
	Kashinagara Main Road 1st Cross L/S to Burial Ground									
	Ch: 0.00 to 37.00 M	1	37.00			1.00	0.15	5.55		
	Ch: 43.00 to 68.00 M	1	25.00			1.00	0.15	3.75		
	Ch: 73.00 to 111.00 M	1	38.00			1.00	0.15	5.70		
	Ch: 116.00 to 142.00 M	1	26.00			1.00	0.15	3.90		
	Ch: 148.00 to 169.00 M	1	21.00			1.00	0.15	3.15		
	Ch: 175.00 to 205.00 M	1	30.00			1.00	0.15	4.50		
	Ch: 205.00 to 233.00 M	1	28.00			1.00	0.15	4.20		
	Culverts									
		1	6.00			1.80	0.15	1.62		
		1	6.00			1.80	0.15	1.62		
		1	6.00			1.80	0.15	1.62		
	Khashinagara Cross Road									
		1	30.00			4.00	0.15	18.00		
		1	18.00			4.00	0.15	10.80		
							Total Qty =	**64.41**	5159.02	**332292.00**
3	Providing and laying in position reinforced cement concrete of Design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications								Cum	
	Bottom Concrete									
	Kashinagara Main Road 1st Cross L/S to Burial Ground									
	Ch: 0.00 to 37.00 M	1	37.00			0.90	0.15	5.00		
	Ch: 43.00 to 68.00 M	1	25.00			0.90	0.15	3.38		
	Ch: 73.00 to 111.00 M	1	38.00			0.90	0.15	5.13		
	Ch: 116.00 to 142.00 M	1	26.00			0.90	0.15	3.51		
	Ch: 148.00 to 169.00 M	1	21.00			0.90	0.15	2.84		
	Ch: 175.00 to 205.00 M	1	30.00			0.90	0.15	4.05		
	Ch: 205.00 to 233.00 M	1	28.00			0.90	0.15	3.78		
	Side Wall									
	Kashinagara Main Road 1st Cross L/S to Burial Ground									
	Ch: 0.00 to 37.00 M	1x2	37.00			0.15	0.90	9.99		
	Ch: 43.00 to 68.00 M	1x2	25.00			0.15	0.90	6.75		
	Ch: 73.00 to 111.00 M	1x2	38.00			0.15	0.90	10.26		
	Ch: 116.00 to 142.00 M	1x2	26.00			0.15	0.90	7.02		
	Ch: 148.00 to 169.00 M	1x2	21.00			0.15	0.90	5.67		
	Ch: 175.00 to 205.00 M	1x2	30.00			0.15	0.80	7.20		
	Ch: 205.00 to 233.00 M	1x2	28.00			0.15	0.80	6.72		
							Total Qty =	**81.29**		
							Qty Limited to =	**81.00**	6371.66	**516104.00**

Sl No.	Description	No.	L	No of Rods	L of Bars	Total Length 10 mm	Total Length 8 mm	Qty	Rate / Unit	Amount
4	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. TMT bars Fe 500								Tonne	
	Kashinagara Main Road 1st Cross L/S to Burial Ground									
	Ch: 0.00 to 37.00 M	1	37.00	450	2.60	1170.00				
		1	37.00	7			259.00			
	Ch: 43.00 to 68.00 M	1	25.00	320	2.60	832.00				
		1	25.00	7			175.00			

Assistant Engineer

Assistant Executive Engineer
Kodigenalli Sub Division
Yelahanka B.B.M.P.

Assistant Executive Engineer
Kodigenalli Sub Division
Yelahanka B.B.M.P.

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
	Ch: 73.00 to 111.00 M	1	38.00	460	2.60	1196.00				
		1	38.00	7			266.00			
	Ch: 116.00 to 142.00 M	1	26.00	330	1.80	594.00				
		1	26.00	7			182.00			
	Ch: 148.00 to 169.00 M	1	21.00	270	2.70	729.00				
		1	21.00	8			168.00			
	Ch: 175.00 to 205.00 M	1	30.00	380	2.70	1026.00				
		1	30.00	8			240.00			
	Ch: 205.00 to 233.00 M	1	28.00	395	2.70	1066.50				
		1	28.00	8			224.00			
	Total 10 mm Rods			6810.00		0.62	=	4222.20		
				1540.00		0.39	=	600.60		
								4822.80		
								4.83	64243.42	**310296.00**
5	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for columns, pillars,post and struts, circular or curved in plan including cost of all materials, labour complete as per specifications								Sqm	
	Kashinagara Main Road 1st Cross L/S to Burial Ground									
	Ch: 0.00 to 37.00 M	1x4	37.00				0.90	133.20		
	Ch: 43.00 to 68.00 M	1x4	25.00				0.90	90.00		
	Ch: 73.00 to 111.00 M	1x4	38.00				0.90	136.80		
	Ch: 116.00 to 142.00 M	1x4	26.00				0.90	93.60		
	Ch: 148.00 to 169.00 M	1x4	21.00				0.90	75.60		
	Ch: 175.00 to 205.00 M	1x4	30.00				0.90	108.00		
	Ch: 205.00 to 233.00 M	1x4	28.00				0.90	100.80		
							Total Qty =	**738.00**		
							Qty Limited to =	**720.00**	387.96	**279331.00**
6	Providing and constructing granite / trap / basalt size stone masonry in **foundation with cement mortar 1:6**, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.								Cum	
		2	6.00			0.45	0.90	4.86		
		2	6.00			0.45	0.90	4.86		
		2	6.00			0.45	0.90	4.86		
							Total Qty =	**14.58**	4438.22	**64709.00**
7	Providing ruled pointing to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications.								Cum	
		2	6.00				0.90	10.80		
		2	6.00				0.90	10.80		
		2	6.00				0.90	10.80		
							Total Qty =	**32.40**	34.98	**1133.00**
8	Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum	
	Culvert Bottom	1	6.00			0.60	0.10	0.36		
		1	6.00			0.60	0.10	0.36		
		1	6.00			0.60	0.10	0.36		
	Culvert Side Wall Coping	2	6.00			0.45	0.10	0.54		
		2	6.00			0.45	0.10	0.54		
		2	6.00			0.45	0.10	0.54		
	Khasinagara Cross	1	30.00			4.00	0.10	12.00		
		1	17.00			4.00	0.10	6.80		
							Total Qty =	**21.50**	5767.46	**124000.00**

Assistant Executive Engineer Kogilu Sub Division Yelahanka Zone, B.B.M.P Bangalore

Assistant Executive Engineer Kogilu Sub Division, Yelahanka Zone, B.B.M.P Bangalore

Assistant Executive Engineer Kogilu

A.E.E. N.D.
Assistant Engineer

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
9	Providing and fixing RCC precast covering slab of 100 mm for drain in cement concrete , M20 using graded granite jelly 20 mm and down size with steel reinforcement including form work lift charges, curing and concrete finishied surfaces of both side etc complete as per specifications.								Sqm	
	Kashinagara Main Road 1st Cross L/S to Burial Ground									
	Ch: 0.00 to 37.00 M	62				0.90	0.60	33.48		
	Ch: 43.00 to 68.00 M	42				0.90	0.60	22.68		
	Ch: 73.00 to 111.00 M	62				0.90	0.60	33.48		
	Ch: 116.00 to 142.00 M	42				0.90	0.60	22.68		
	Ch: 148.00 to 169.00 M	40				0.90	0.60	21.60		
	Ch: 175.00 to 205.00 M	50				0.90	0.60	27.00		
	Ch: 205.00 to 233.00 M	45				0.90	0.60	24.30		
	RCC old Drain									
	Ch: 0.00 - 24.00 M	45				0.90	0.60	24.30		
	Ch: 30.00 - 61.00 M	52				0.90	0.60	28.08		
	Ch: 66.00 - 96.00 M	53				0.90	0.60	28.62		
	Ch: 96.00 - 126.00 M	53				0.90	0.60	28.62		
	Ch: 126.00 - 156.00 M	50				0.90	0.60	27.00		
	Ch: 156.00 - 184.00 M	52				0.90	0.60	28.08		
	Ch: 205.00 - 219.00 M	25				0.90	0.60	13.50		
	Khasinagara Main Road from (Burial Ground to Pvt Property									
	Ch: 0.00 to 30.00 M	102				0.90	0.60	55.08		
	Ch: 30.00 to 60.00 M	102				0.90	0.60	55.08		
	Ch: 60.00 to 90.00 M	102				0.90	0.60	55.08		
	Ch: 90.00 to 120.00 M	102				0.90	0.60	55.08		
	from Main Road to Lake									
	Ch: 0.00 to 30.00 M	101				0.90	0.60	54.54		
	Ch: 30.00 to 60.00 M	101				0.90	0.60	54.54		
	Ch: 60.00 to 90.00 M	101				0.90	0.60	54.54		
	Ch: 90.00 to 103.00 M	50				0.90	0.60	27.00		
							Total Qty =	**774.36**		
							Qty Limited to =	**774.00**	2100.00	**1625400.00**
10	Providing and fixing 20 cm thick precast RCC Covering slab using reinforcement cement concrete , M20 using graded granite jelly 20 mm and down size with steel reinforcement including form work lift charges, curing and concrete finishied surfaces of both side etc complete as per specifications.								Sqm	
	Culvert Covering Slab	30				1.80	0.60	32.40		
							Total Qty =	**32.40**	5111.00	**165596.00**
11	Loading and Unloading of Stone Boulder / Stone aggregates /Sand/ Kanker / Moorum. KSRRB M100-1 : Placing tipper at loading point, loading with front end loader,dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications								Cum	
		Qty Vide Item No. 1						**878.88**		
							Total Qty =	**878.88**	106.00	**93161.00**
	Sub Total									**3588414.00**
	KRIDL Charges @ 10%									**358841.00**
	Labour Cess Charges @ 1%									**35884.00**
									Total	**3983139.00**

Rupees Thirty Nine Lakh(s) Eighty Three Thousand One Hundred Thirty Nine Only

Assistant Engineer
Ward No. 07

Assistant Executive Engineer
Kodigehalli Sub Division

Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.